

6 - 9. (Previously Cancelled)

10. (Cancel)

11 - 50. (Previously Cancelled)

51 - 59. (Cancel)

60. (Newly Added) An isolated and purified nucleic acid segment encoding a hyaluronate synthase, wherein the isolated and purified nucleic acid segment comprises the nucleic acid segment of SEQ ID NO:1.

61. (Newly Added) A recombinant expression vector comprising the nucleic acid segment of claim 1.

62. (Newly Added) The recombinant expression vector of claim 61, wherein the recombinant expression vector is a plasmid.

63. (Newly Added) The recombinant expression vector of claim 61, wherein the recombinant expression vector is an expression vector having a promoter operatively linked to the nucleic acid segment of claim 1.

64. (Newly Added) The recombinant expression vector of any of claims 61, 62 and 63, placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus*.

65. (Newly added) The recombinant expression vector of claim 64 wherein the recombinant strain of *Bacillus* is selected from the group consisting of *Bacillus subtilis*, *Bacillus licheniformis*, *Bacillus thuringiensis*.

66. (Newly Added) A recombinant expression vector comprising the nucleic acid segment of claim 60.

67. (Newly Added) The recombinant expression vector of claim 66, wherein the recombinant expression vector is a plasmid.

68. (Newly Added) The recombinant expression vector of claim 66, wherein the recombinant expression vector is an expression vector having a promoter operatively linked to the nucleic acid segment of claim 1.

69. (Newly Added) The recombinant expression vector of any of claims 67, 68 and 69, placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus*.

70. (Newly added) The recombinant expression vector of claim 69 wherein the recombinant strain of *Bacillus* is selected from the group consisting of *Bacillus subtilis*, *Bacillus licheniformis*, *Bacillus thuringiensis*.

71. (Newly added) The recombinant expression vector of claims 63 or 68, wherein the promoter is a heterologous promoter.

72. (Newly added) The recombinant expression vector placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus* of claims 64 and 69 wherein the strain of *Bacillus* or *Escherichia* or *Enterococcus* having the recombinant expression vector therein is capable of producing hyaluronic acid.